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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,629	07/31/2002	Calvin Edward Phillips	000031562-1	8858
31562	7590	02/27/2006	EXAMINER	
APPLIEDVB INC. 359 SPODE WAY SAN JOSE, CA 95123			SHARON, AYAL I	
			ART UNIT	PAPER NUMBER
			2123	
DATE MAILED: 02/27/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/064,629

Applicant(s)

PHILLIPS ET AL.

Examiner

Ayal I. Sharon

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. Claims 1-4 of U.S. Application 10/064,629, originally filed on 07/31/2002, have been presented for examination.

"Pro Se" Applicant

2. The following two paragraphs should not be interpreted as an indication of allowability.
3. While an inventor may prosecute the application ("Pro Se"), lack of skill in this field usually acts as a liability in affording the maximum protection for the invention disclosed. Applicant is advised to secure the services of a registered patent attorney or agent to prosecute the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent.
4. A listing of registered patent attorneys and agents is available on the USPTO Internet web site <http://www.uspto.gov> in the Site Index under "Attorney and Agent Roster." Applicants may also obtain a list of registered patent attorneys and agents located in their area by writing to the Mail Stop OED, Director of the U. S. Patent and Trademark Office, PO Box 1450, Alexandria, VA 22313-1450

Drawings

5. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In addition, in regards to the following limitations:

a process in which the operation of any one or a combination of the separate operating programs;

a process in which the definition of general description data made on a general or main screen is included as a part of each separate operating program;

a process in which the operation of any one or a combination of the separate operating programs may be tied together when the function of one provides data for another;

It is not clear whether the Applicant is attempting to claim a program that uses subroutines, or a program that uses multi-threading, or some other unidentified third form of program.

Programs using subroutines "*may be tied together when the function of one provides data for another*", yet they are not "*separate operating programs*". Multi-threaded programs are "*separate operating programs*", yet the independent threads do not communicate with one another.

If the Applicant is using some other form of programming, it is not disclosed in the specification to the extent that one of ordinary skill in the art would know how to make the claimed invention.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the following limitation appears to be a sentence fragment lacking a verb:

a process in which the operation of any one or a combination of the separate operating programs;

It is not clear if the verbal phrased at the end of this limitation was accidentally deleted. As it stands, this limitation is vague and indefinite.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

11. The prior art used for these rejections is as follows:

- a. Computers and Structures, Inc. SAP2000® Linear and Nonlinear Static and Dynamic Analysis and Design of Three-Dimensional Structures.

Version 8.0. Revised June 2002. ("**SAP2000_Analysis**").

12. Claim 3 is rejected under 35 U.S.C. 102(a) as being anticipated by SAP2000_Analysis.

13. In regards to Claim 3, SAP2000_Analysis teaches the following limitations:

3. *A system, wherein the building structure composite details of walls, floors, foundations, ceilings, and/or roofs are defined in terms of various nominal layers and area such that:*

a process in which a composite structural member is evaluated for weight per unit area, load per lateral measurement, total weight, and load on structures where only ends are employed;

(See SAP2000_Analysis, especially: pp.2-25 to 2-33)

a process in which a defined composite structure computation may be saved as a data file where it may be loaded at a later time such that all the data of the composite structure member are input into a computation form and be subject to modification of all parameters as a user may wish for a modified recalculation.

(See SAP2000_Analysis, especially: pp.2-25 to 2-33)

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. The prior art used for these rejections is as follows:

- a. Computers and Structures, Inc. SAP2000® Linear and Nonlinear Static and Dynamic Analysis and Design of Three-Dimensional Structures. Version 8.0. Revised June 2002. ("**SAP2000_Analysis**").
- b. Computers and Structures, Inc. SAP2000® Integrated Finite Element Analysis and Design of Structures: Concrete Design Manual. Version 7.4. Revised May 2000. ("**SAP2000_Concrete**").

- c. Computers and Structures, Inc. SAP2000® Integrated Finite Element Analysis and Design of Structures: Steel Design Manual. Version 7.4.
Revised May 2000. ("**SAP2000_Steel**").

17. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over SAP2000_Analysis in view of SAP2000_Concrete and further in view of SAP2000_Steel.

18. In regards to Claim 1, SAP2000_Analysis teaches the following limitations:

1. *A system for analyzing a structure having a rigid element in which:

a data input of a material used in a structure is selected from a database of multiple materials and grades each of which contains necessary physical properties to evaluate the adequacy of a structure to withstand the loads input for a structure made of the material;*

(See SAP2000_Analysis, especially: pp.2-25 to 2-33)

However, SAP2000_Analysis does not expressly teach the following limitations:

a process wherein selected material physical data is automatically applied to equations which are set to compute acceptance a standard method and value;

a process wherein a computed result is compared to a minimum acceptable standard set value in such a way to indicate the selected material/structure configuration as acceptable, marginal, or unacceptable by a percentage of the minimum set value;

a process in which if a computed result is unacceptable, below the standard value, or marginal, within a determined percentage of minimum standard value, a message screen is displayed to the user for acknowledgement before proceeding to completion of the analysis;

a process wherein a structural computation may be saved as a data file where it may be loaded at a later time such that all the data including the structural material and grade are input into the computation form and be subject to modification of all parameters as a user may wish for a modified recalculation.

SAP2000_Concrete and SAP2000_Steel, on the other hand, do expressly teach the above cited limitations. (See especially: SAP2000_Concrete pp.1-3, and SAP2000_Steel pp.1-3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of SAP2000_Analysis with those of SAP2000_Concrete and SAP2000_Steel, because all three references teach features of the same product: SAP2000.

19. In regards to Claim 2, SAP2000_Analysis teaches the following limitations:

2. *A computer program system wherein a building structure composed of walls, floors, foundations, ceilings, and/or roofs are defined in a database*

(See SAP2000_Analysis, especially: pp.2-25 to 2-33)

However, SAP2000_Analysis does not expressly teach the following limitations:

along with seismic and wind parameters such that:

a process in which the complete structural is evaluated for its potential to withstand a set standard seismic condition; a process in which the complete structure is evaluated for its potential to withstand a set standard wind force condition;

a process in which the computed results of the defined structure physical data is automatically applied to seismic and wind equations which are set to a standard acceptance value;

a process in which the computed result of the defined structure is compared to a minimum acceptable set standard value in such a way to indicate the selected configuration is acceptable, marginal, or unacceptable by a percentage of the minimum acceptable value;

a process in which if the computed result of the defined structure is unacceptable, below a set value, or marginal, within determined percentage of a minimum set value, a message screen is displayed to the

user for acknowledgement before proceeding to completion of the analysis; a process in which the computed seismic and wind force results are subject to further separate analysis such as the loads on a support configuration (such as shear walls and foundations);

a process in which the data base of the defined structure computation may be saved as a data file where it may be loaded at a later time such that all the data including the seismic and wind parameters are input into the computation form and be subject to modification of all parameters as a user may wish for a modified recalculation.

(See especially: SAP2000_Steel p.7, para.1 and 3; SAP2000_Steel p.18 "Design Load Combinations"; and SAP2000_Concrete p.7, para.1 and 3; SAP2000_Concrete p.18 "Design Load Combinations").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of SAP2000_Analysis with those of SAP2000_Concrete and SAP2000_Steel, because all three references teach features of the same product: SAP2000.

Conclusion

20. The following prior art, made of record and not relied upon, is considered pertinent to applicant's disclosure.

21. Lord, James. "Real-Time Simulated Earthquake Motion of High Rise Structures." Proc. 7th ACM/IEEE DAC. 1970. pp.35-46. (Teaches modeling of affect of seismic conditions on buildings).

22. Deng, Linzhong and Michel Ghosn. "Structural Analysis with SAP2000".
http://www.ce.engr.ccny.cuny.edu/Courses/CE5754/SAP2000_Manual.htm.

Undated. (On p.6, teaches deforming building models with stresses – such as wind or seismic forces – and checking the safety of the design).

23. Wilson, Edward. Three Dimensional Static and Dynamic Analysis of Structures: A Physical Approach With Emphasis on Earthquake Engineering. Third Edition.

Reprint January 2002. Published by Computers and Structures, Inc. (Only Table of Contents and Chapters 12 and 17 provided. Teaches seismic modeling of structures, using SAP2000®).

24. Computers and Structures, Inc. SAP2000® Integrated Finite Element Analysis and Design of Structures: Getting Started. Version 7.1. Revised February 1999.

(Teaches how to install SAP2000, and then use the GUI).

25. U.S. Patent 6,826,516 to Ito. (Teaches incorporating seismic force and wind pressure in load calculations. See col.6, lines 15-25).

26. U.S. Patent 6,760,691 to Ito. (Teaches incorporating seismic force and wind pressure in load calculations. See col.7, lines 12-22).

27. U.S. Patent 4,964,060 to Hartsog. (Teaches calculating axial, shear, moment, and torsion loads. See col.16, lines 30-35. Also teaches incorporating seismic force and wind pressure in load calculations. See col.17, lines 5-15. Also teaches performing the calculations for wood, steel, and concrete. See col.17, line 61 to col.18, line 50).

28. U.S. Patent 6,836,752 to Atasoy. (Teaches incorporating seismic force and wind pressure in load calculations, and also teaches performing the calculations for wood. See col.6, lines 5-15).

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ayal I. Sharon whose telephone number is (571) 272-3714. The examiner can normally be reached on Monday through Thursday, and the first Friday of a bi-week, 8:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached at (571) 272-3749.

Any response to this office action should be faxed to (571) 273-8300, or mailed to:


USPTO
P.O. Box 1450
Alexandria, VA 22313-1450

or hand carried to:

USPTO
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2100 Receptionist, whose telephone number is (571) 272-2100.

Ayal I. Sharon
Art Unit 2123
February 20, 2006


Paul L. Rodriguez 2/21/06
Primary Examiner
Art Unit 2125